

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Parts 52 and 81**

**[AZ104-0069; FRL- ]**

**Approval and Promulgation of Implementation Plans and  
Designation of Areas for Air Quality Planning Purposes; Arizona**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

---

**SUMMARY:** EPA is proposing to approve the Maricopa Association of Governments (MAG) serious area carbon monoxide (CO) state implementation plan (SIP) for the Maricopa County CO nonattainment area (the metropolitan Phoenix area, Arizona) as meeting the Clean Air Act (CAA) requirements for serious CO nonattainment areas. We are also proposing to approve the MAG CO redesignation request and maintenance plan for the Maricopa County CO nonattainment area as meeting CAA requirements for redesignation requests and maintenance plans. In addition, we are proposing to make a boundary change under Section 107 of the CAA to take the Gila River Indian Community (GRIC) out of the Maricopa County maintenance area. The portion of the Gila River Indian Community which is currently in the Maricopa County CO nonattainment area will be "unclassifiable/attainment" for CO, and will not be subject to the MAG CO Redesignation Request and Maintenance Plan.

**DATES:** Written comments must be received at the address below on or before [insert date 30 days from the date of publication in

the Federal Register].

**ADDRESSES:** Formal written comments should be mailed or emailed to Wienke Tax, Office of Air Planning (AIR-2), US Environmental Protection Agency, Region 9, 75 Hawthorne Street, San Francisco, CA 94105-3901, [tax.wienke@epa.gov](mailto:tax.wienke@epa.gov). Comments may also be submitted through the Federal Register website at <http://www.regulations.gov>. We prefer electronic comments.

You can inspect copies of EPA's Federal Register document and technical support documents (TSD) at our Region 9 office during normal business hours (see address above). Due to increased security, we suggest that you call at least 24 hours prior to visiting the Regional Office so that we can make arrangements to have someone meet you. The Federal Register document and TSD are also available as electronic files on EPA's Region 9 Web Page at <http://www.epa.gov/region09/air>.

You may inspect and copy the rulemaking docket for this notice at the following location during business hours.

Environmental Protection Agency, Region 9, Air  
Division, Air Planning Office (AIR-2), 75  
Hawthorne Street, San Francisco, CA 94105.

Copies of the SIP materials are also available for inspection at the address listed below:

Arizona Department of Environmental Quality  
1110 W. Washington Street, First Floor  
Phoenix, AZ 85007  
Phone: (602)771-4335

**FOR FURTHER INFORMATION CONTACT:** Wienke Tax, Office of Air Planning, U.S. Environmental Protection Agency, Region 9, (520) 622-1622, email: [tax.wienke@epa.gov](mailto:tax.wienke@epa.gov), or <http://www.epa.gov/region09/air>.

**SUPPLEMENTARY INFORMATION:** Throughout this document, the terms "we," "us," and "our" mean U.S. EPA.

## **Table of Contents**

- I. Summary of Today's Proposed Action
- II. The Serious Area CO SIP for the Phoenix Area
- III. The CAA's Requirements for Serious CO Nonattainment Area Plans
- IV. The Revised 1999 CO Plan's Compliance with the CAA's Requirements for Serious CO Nonattainment Area Plans
  - A. Completeness of the SIP Submittals and Adequacy of the Motor Vehicle Emissions Budget
  - B. Emissions Inventory
  - C. Adequate Monitoring Network
  - D. Implementation of Reasonably Available Control Measures
  - E. Demonstration of Attainment
  - F. Reasonable Further Progress
  - G. VMT Tracking and Reporting
  - H. Transportation Control Measures to Offset Growth in Emissions
  - I. Contingency Measures
  - J. Enhanced I/M Program

- K. Wintertime Oxygenated Gasoline Program
- L. General SIP Requirements
- V. The CAA's Requirements for Serious CO Maintenance Plans and Redesignation Requests
- VI. The MAG CO Redesignation Request and Maintenance Plan's Compliance with the CAA's Requirements for CO Redesignation Requests and Maintenance Plans
  - A. General SIP Requirements
  - B. Attainment of the CO NAAQS
  - C. Meeting Applicable Requirements of Section 110 and Part D
  - D. Fully-Approved SIP Under Section 110(k) of the CAA (NSR)
  - E. Improvement in Air Quality Due to Permanent and Enforceable Measures
  - F. Fully-Approved Maintenance Plan under Section 175A
- VII. EPA's Evaluation of the Transportation Conformity Requirements in the MAG CO Redesignation Request and Maintenance Plan
- VIII. GRIC Boundary Change Under CAA Section 107
  - A. Background
  - B. EPA Review of the Community's Request
  - C. Redesignation of the Northern Portion of the Reservation
- IX. Proposed Action
- X. Statutory and Executive Order Reviews
- I. Summary of Today's Proposed Action**

We are proposing to approve the MAG serious area SIP for attainment of the CO air quality standard in the metropolitan Phoenix (Maricopa County), Arizona area. This action is based on our determination that this SIP complies with the CAA's requirements for attaining the CO standard in serious CO nonattainment areas such as the metropolitan Phoenix area.

We are also proposing to approve the MAG CO redesignation request and maintenance plan for the Maricopa County CO nonattainment area as meeting CAA requirements for redesignation requests and maintenance plans.

We are also proposing to make a boundary correction under Section 107 of the CAA for the Gila River Indian Community.

## **II. The Serious Area CO SIP for the Phoenix Area**

We are proposing to approve the Revised MAG 1999 Serious Area Carbon Monoxide Plan for the Maricopa County Nonattainment Area, March 2001. The plan was developed by MAG, the lead air quality planning agency in Maricopa County. The Arizona Department of Environmental Quality (ADEQ) submitted this plan as a revision to the Arizona SIP on March 30, 2001 and EPA received it on April 2, 2001. We refer to this plan in this document as the Revised CO Plan or the Revised 1999 CO plan, or variations of these.

As submitted, the Revised 1999 CO plan consists of the main plan document, three volumes of technical appendices and three

volumes of commitments from various agencies to implement CO controls. The plan contains 1993 and 1996 emission inventories, a reasonably available control measures (RACM) analysis, vehicle miles traveled (VMT) tracking procedures, annual VMT projections through 2000, and contingency measures. It uses the Urban Airshed Model (UAM) and CAL3QHC microscale model to model air quality in 1994 as a base year and in 2000 as the attainment year and demonstrates both reasonable further progress towards and attainment of the CO standard by December 31, 2000.

The MAG plan shows that the principal sources contributing to CO exceedances are gasoline on-road motor vehicles, gasoline non-road engines, and woodburning. MAG plan, p. ES-1.

In earlier actions, we have already approved revisions to Arizona's Cleaner Burning Gasoline (CBG) program and to Arizona's Vehicle Emissions Inspection (VEI) Program as well as the Maricopa County Woodburning curtailment program. 69 FR 10161 (March 4, 2004), 68 FR 2912 (January 22, 2003), 64 FR 60678 (November 8, 1999) and 67 FR 48718 (July 25, 2002). The revisions to these programs are the principal controls relied on in the revised MAG CO plan to demonstrate attainment. We have also previously approved the commitments by the Phoenix area cities and towns to adopt and/or implement CO control measures. We approved these commitments as part of the serious area PM-10 plan approval on July 25, 2002 at 67 FR 48718. See 40 CFR

52.120(c)(100). Many of these commitments by Phoenix area cities and towns commit to measures which address CO as well as PM-10 emissions reductions.

For a complete history of the CO planning efforts in the Phoenix area as well as the history of the development of the CO plan, please see Section 1 in EPA's TSD.

### **III. The CAA's Requirements for Serious CO Nonattainment Area Plans**

The Phoenix area was reclassified from moderate to serious for CO on July 29, 1996 (61 FR 39343) because the area had not attained the CO standard by the moderate area deadline of December 31, 1995. As a result of this reclassification, Arizona was required to submit by February 28, 1998, a revision to its SIP for the Phoenix area that met the CAA requirements for serious CO nonattainment areas found in section 187(a) and section 172(c)(1). This SIP revision needed to show attainment of the CO standard by December 31, 2000. In summary, these requirements are:

- (a) implementation of all reasonably available control measures (RACM), including reasonably available control technology (RACT) for stationary sources (CAA section 172(c)(1));
- (b) provisions for attainment, and a demonstration that the plan will provide for attainment by no later than December 31, 2000 (CAA section 187(b)(7));

- (c) provisions for such specific annual emission reductions as are necessary to attain by December 31, 2000 (CAA sections 172(c)(2) and 187(b)(7));
- (d) forecasts of vehicle miles traveled (VMT) in the nonattainment area for each year before the year in which the plan projects attainment (CAA section 187(a)(2)(A));
- (e) an enhanced vehicle inspection and maintenance program (CAA section 187(a)(6));
- (f) an oxygenated gasoline program (CAA sections 187(b)(3) and 211(m));
- (g) transportation control strategies and measures to offset any growth in emissions from vehicle miles traveled or numbers of vehicle trips (CAA section 187(b)(2));
- (h) contingency measures that will be implemented if the area fails to attain by its applicable deadline, fails to make reasonable further progress, or vehicle mile traveled estimates exceed those forecasted (CAA sections 172(c)(9) and 187(a)(3));
- (i) a comprehensive, accurate, current inventory of actual emissions from all sources of CO (CAA sections 172(c)(3) and 187(a)(5)); and
- (j) a transportation conformity budget (CAA section 176(c)).

Serious area CO SIPs must also meet the general requirements applicable to all SIPs including reasonable notice and public



hearing under section 110(a), necessary assurances that the implementing agencies have adequate personnel, funding and authority under section 110(a)(2)(E)(i) and 40 CFR 51.280; and the description of enforcement methods as required by 40 CFR § 51.111.<sup>1</sup>

We have issued a General Preamble<sup>2</sup> describing our preliminary views on how the Agency intends to review SIPs submitted to meet the Clean Air Act's requirements for CO SIPs. We have also issued other guidance documents related to CO SIPs or provisions of those SIPs, including the "Technical Support Document to Aid States with the Development of Carbon Monoxide State Implementation Plans," Office of Air Quality Planning and Standards (OAQPS), US EPA, EPA-452/R-92-003 (July 1992).

On July 8, 1999, ADEQ submitted the MAG 1999 Serious Area CO Plan ("1999 CO Plan") to EPA. We found the submittal complete on September 9, 1999. The 1999 CO Plan was revised because the Arizona legislature passed House Bill (HB) 2104 during the 2000 regular session, which repealed the remote sensing portion of the

---

<sup>1</sup>Serious area SIPs must also include new source review (NSR) permitting rules that meet the requirements of sections 172(c)(5) and 173. In practice, NSR rules are submitted and reviewed separately from the rest of the serious area CO plan. Maricopa County has submitted a complete NSR rule.

<sup>2</sup>"State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990," 57 FR 13498 (April 16, 1992) and 57 FR 18070 (April 28, 1992).

VEI program. We indicated that the 1999 CO Plan would need to be revised to reflect the change in the VEI program. MAG conducted new air quality modeling and revised the 1999 CO Plan. On April 2, 2001, ADEQ submitted the Revised 1999 MAG Serious Area CO Plan ("Revised 1999 CO Plan") to EPA.

#### **IV. The Revised 1999 CO Plan's Compliance with the CAA's Requirements for Serious CO Nonattainment Area Plans**

The following sections present a summary of our evaluation of the Revised 1999 CO Plan's compliance with the applicable CAA requirements for serious area SIPs for CO. Our complete evaluation is found in the EPA TSD for this action.<sup>3</sup> A copy of the EPA TSD can be obtained by calling or writing the contact person listed above.

##### *A. Completeness of the SIP Submittals and Adequacy of the Motor Vehicle Emissions Budget*

The first step we take after receiving a SIP submittal is to determine if it is complete. CAA section 110(k)(1)(B) requires that we review all SIPs and SIP revisions for completeness within 60 days of receipt. The completeness review allows us to quickly determine if the submittal includes all the necessary items and information we need to take action on it. We make completeness

---

<sup>3</sup> See "Technical Support Document for the Notice of Proposed Rulemaking on the Carbon Monoxide Serious Area Planning Requirements for the Maricopa County, Arizona Nonattainment Area," June 2004, Air Division, USEPA Region 9.

determinations using criteria we have established in 40 CFR part 51, Appendix V.

We found ADEQ's March 30, 2001 submittal (received on April 2, 2001) of the Revised 1999 CO Plan complete and notified the State on October 9, 2001. See Letter, Jack P. Broadbent, EPA, to Jacqueline Schafer, ADEQ. Our completeness determination is documented in Section 2 of the EPA TSD.

Section 176(c) of the Clean Air Act requires that federally funded or approved transportation plans, programs, and projects in nonattainment areas "conform" to the area's air quality SIPs. Conformity ensures that federal transportation actions do not worsen an area's air quality or interfere with its meeting the air quality standards. We have issued a conformity rule that establishes the criteria and procedures for determining whether or not transportation plans, programs, and projects conform. See 40 CFR part 93, subpart A.

One of the primary tests for conformity is to show that transportation plans and improvement programs will not cause motor vehicle emissions to increase above levels needed to make progress toward and to meet the air quality standards. The motor vehicle emissions levels needed to make progress toward and to meet the air quality standards are set forth in the area's air quality SIPs as an "emissions budget for motor vehicles." The conformity rule's requirements and EPA's policy on emissions

budgets are found in the preamble to the November 24, 1993 transportation conformity rule (58 FR 62193-96), in the sections of the rule referenced above, and in subsequent revisions to the conformity rule (69 FR 40004, July 1, 2004).

Before an emissions budget in a submitted SIP revision may be used in a conformity determination, we must first determine that it is adequate. The criteria by which we determine adequacy of submitted emission budgets are outlined in conformity rules in 40 CFR 93.118(e)(4).

The Revised 1999 CO Plan, submitted on March 30, 2001, established a revised mobile source emissions budget of 412.2 metric tons per day (mtpd). Revised 1999 CO Plan, p. 9-11. We found this budget adequate for transportation conformity purposes on September 28, 2001. See letter, Jack Broadbent, EPA Region 9 to Jacqueline Schafer, ADEQ, and James Bourey, MAG. Our finding was published in the Federal Register on October 17, 2001 (66 FR 52761) and became effective 15 days later on November 1, 2001.

#### *B. Emissions Inventory*

CAA section 172(c)(3) requires all serious area CO SIP submittals to include a comprehensive, accurate, and current inventory of actual emissions from all sources in the base year inventory to forecast and backcast other years. Maricopa County chose the year 1993 as the base year for its serious area CO SIP since it was the most complete emission inventory available at

the time MAG started its modeling for the 1999 CO Plan. MAG developed a 1994 modeling inventory based on the 1993 annual CO inventory. The base year and forecasted 1996 emission inventories described all the sources of CO for the nonattainment area. In 1998, Maricopa County completed the draft 1996 CO emissions inventory. In response to public comments on the Draft MAG 1998 CO Plan, a comparison of the 1993 and 1996 periodic inventories and an evaluation of the 1994 base case modeling inventory were conducted. MAG subsequently revised the nonroad equipment modeling assumptions to be more consistent with the 1996 CO inventory. The comparison concluded that the 1994 modeling inventory contained the most recent and valid assumptions.

The emission inventory is divided into source categories and subcategories. The main source categories are stationary sources (both point and aggregated), area sources, on-road mobile sources, and off-road mobile sources. Source categories provide a convenient way to organize the emission inventory and to determine the significance of particular sources. Seasonal inventories are provided to account for the differences in emissions occurring during the times of year when Maricopa County used to exceed the 8-hour CO standard. We are approving the emission inventories of the Maricopa County CO nonattainment area as meeting the requirements of section 172(c)(3) of the CAA.

On September 18, 1996, we proposed approval of the 1990 base

year CO emissions inventory for Maricopa County (see 61 FR 49087). When we finalize today's proposed action, we will also finalize approval of the 1990 base year emissions inventory proposed on September 18, 1996.

### *C. Adequate Monitoring Network*

The CAA requires states to establish and operate air monitoring networks to compile data on ambient air quality for all criteria pollutants. Section 110(a)(2)(B)(i). Our regulations in 40 CFR part 58 establish specific regulatory requirements for operating air quality surveillance networks to measure ambient concentrations of CO, including measurement method requirements, network design, quality assurance procedures, and in the case of large urban areas, the minimum number of monitoring sites designated as National Air Monitoring Stations (NAMS).

Ambient networks, however, do not need to meet all our regulations to be found adequate to support air quality modeling. A good spatial distribution of sites, correct siting, and quality-assured and quality-controlled data are the most important factors for air quality modeling. Nonattainment area plans developed under title I, part D of the Clean Air Act are not generally required to address how the area's air quality network meets our monitoring regulations. These plans are submitted too infrequently to serve as the vehicle for assuring that monitoring networks remain current.

For this action, we are discussing the adequacy of the Phoenix area monitoring network solely to support our finding that the Revised 1999 CO Plan appropriately evaluates the CO problem in the Phoenix area. Reliable ambient data is necessary to validate the base year air quality modeling which in turn is necessary to assure a sound attainment demonstration.

There are fourteen CO monitoring sites in the metropolitan Phoenix area; thirteen are operated by the Maricopa County Environmental Services Department and one by ADEQ. Figure 4-3 on page 4-7 in the Revised 1999 CO Plan lists the names of the sites and their locations in the Phoenix area. These sites all use EPA reference methods, are sited according to our regulations, meet the applicable monitoring objections in our regulations, and are operated according to our regulations. We therefore find that the monitoring network operated by the MCESD and ADEQ is adequate to support the technical evaluation of CO nonattainment problem in the Revised 1999 CO Plan. See also EPA TSD section "Ambient Air Quality Surveillance"

#### *D. Implementation of Reasonably Available Control Measures*

CAA section 172(c)(1) requires that nonattainment plans provide for the implementation of all reasonably available control measures (RACM) as expeditiously as practicable. We interpret this requirement to require a state to consider available measures for controlling CO and to adopt and implement

those measures that are reasonably available for implementation in the area as components of the area's attainment demonstration. In general, we do not consider a measure to be reasonably available if it is economically or technologically infeasible for the area, would not advance attainment of the relevant standard in the area, or is absurd, unenforceable or impracticable. General Preamble at 13560.

As described above, the principal sources of CO in the metropolitan Phoenix area are (in order of importance) on-road motor vehicles, non-road engines, and residential woodburning, which collectively account for 99 percent of the 1996 seasonal inventory. Revised 1999 CO Plan, Figure ES-2. The Revised 1999 CO Plan evaluates a broad range of controls for each of these sources categories. See Revised 1999 CO Plan, Chapter 6.

For on-road motor vehicles, adopted controls include the State's enhanced vehicle emission inspection program, cleaner burning gasoline program including a 3.5 percent oxygen content and 9 psi volatility standard, requirements and incentives for the use of alternative fueled vehicles, and numerous transportation control measures (TCMs). See Revised 1999 CO Plan, Chapter 8. We find that these measures along with the federal motor vehicle tailpipe standards provide a comprehensive control strategy for attaining the CO standard and provide for the implementation of RACM in the on-road motor vehicle category as



required by CAA section 172(c)(1). See EPA TSD section "Implementation of RACM for On-Road Motor Vehicle Controls -- Technology."

CAA section 187(b)(2) requires a State with a serious CO nonattainment area to consider the TCMs in section 108(f) and choose to implement such measures as necessary to demonstrate attainment. The Phoenix area has a long history of adopting TCMs, including those in section 108(f), for controlling CO. The Revised 1999 CO Plan implements the section 108(f) TCMs and includes additional measures in support of the attainment demonstration. See Revised 1999 CO Plan, Table 7-2 and Chapter 8. We therefore find that the Revised 1999 CO Plan complies with CAA section 187(b)(2) and 172(c)(1). See EPA TSD section "Implementation of RACM for On-Road Motor Vehicle Controls -- Transportation Control Measures."

The nonroad (mobile) engine category covers a diverse collection of engines, equipment and vehicles fueled by gasoline, diesel, and other fuels and includes outdoor power equipment, recreational equipment, farm equipment, construction equipment, lawn and garden equipment, aircraft, locomotives, and marine vessels. Although diesel engines dominate the market for nonroad engines, ninety percent of CO emissions from the nonroad category come from gasoline-powered nonroad engines.

Starting in the mid-1990s, EPA promulgated national emission

standards for a broad range of nonroad engines. See EPA TSD section "Implementation of RACM for Nonroad Engines." Nonroad engines sold in Arizona are required to comply with these national standards which constitutes a RACM-level program for controlling emissions from nonroad engines.

In addition, Arizona's CBG program regulates gasoline used in nonroad engines. The Revised 1999 CO Plan also includes a number of other nonroad engine measures. See EPA TSD section "Implementation of RACM for Nonroad Engines." With the national emission standards and the additional State measures, we find that the Revised 1999 CO Plan provides for the implementation of RACM for nonroad engines.

The residential wood combustion (RWC) category includes emissions from the burning of solid fuel in residential fireplaces and woodstoves as well as barbecues and fire pits. Measures to control CO from residential woodburning include a public education program, woodburning curtailment programs, retrofit requirements and restrictions or bans on the installation of woodburning stoves and/or fireplaces.

The Maricopa County Environmental Services Department's Rule 318, Approval of Residential Woodburning Devices, establishes standards for the approval of residential woodburning devices that can be used during restricted-burn periods. Maricopa County's Residential Woodburning Restriction Ordinance provides

that restricted-burn periods are declared by the Control Officer when the Control Officer determines that air pollution levels could exceed the CO standard and/or the PM standard (150  $\mu\text{g}/\text{m}^3$ ). We approved Rule 318 and an earlier version of the ordinance (revised April 21, 1999) as providing for the implementation of RACM. See 64 FR 60678 (November 8, 1999).

The Revised 1999 CO Plan includes a number of other woodburning measures. We find that these measures along with Maricopa County's woodburning rules provide for the implementation of RACM for residential wood combustion. See EPA TSD section "Implementation of RACM for Residential Wood Combustion."

#### *E. Demonstration of Attainment*

CAA section 187(a)(7) requires serious area plans to provide for attainment of the CO NAAQS by December 31, 2000 and to contain a demonstration that the plan will provide for attainment. Under our guidance, an attainment demonstration may be made using EPA-approved air quality models and must include the control strategy. General Preamble at 13533.

There are two parts to reviewing a modeled attainment demonstration: 1) evaluating the technical adequacy of the modeling itself, and 2) evaluating the control measures that are relied on to demonstrate attainment. We discuss each part below.

##### 1. Air quality modeling

MAG used the Urban Airshed Model (UAM), the standard model for carbon monoxide attainment demonstrations, consistent with EPA guidance, to predict the effect of control measures in its attainment demonstration. UAM requires meteorological inputs, such as temperature and wind speeds, as well as initial and boundary conditions for CO concentrations, and CO emissions. These must be allocated in time and space; every hour of the simulation and every one square mile grid cell requires these inputs. Diagnostic testing is performed to ensure the model is performing well for a chosen CO episode, which in this case was December 17, 1994, which at 10.5 ppm had the highest CO peak and most widespread high CO readings observed during 1994. Once the model predicts observed CO concentrations for this chosen CO episode adequately, post-control measure emissions are input to the model to project future air quality. Separate predictions are also made "hot spots", intersections with high traffic and congested conditions, using the CAL3QHC model. This "microscale" component is then combined with the UAM results. The total prediction is then compared to the level of the NAAQS, 9.0 ppm, to demonstrate attainment.

As detailed in the TSD, MAG followed accepted procedures in developing the model inputs, performing diagnostic testing of the results, and showing adequate model performance. Model performance statistics met EPA-recommended goals. The observed

spatial and temporal patterns of CO were replicated fairly well by the model. While there were some discrepancies, these were attributed to lack of observations at some locations, and by slight shifts in wind patterns. That is, if the wind field input to the model had been slightly different, some high CO locations in the model predictions would have better matched the monitor locations. But since the magnitude, spatial extent, and timing of elevated CO concentrations is very similar between the model and observations, EPA determines the model performed adequately for attainment demonstration purposes.

Overall, the modeling done by MAG meets EPA guidelines and performs well enough to be relied upon as the basis for the CO attainment demonstration. EPA therefore proposes to approve the CO attainment demonstration.

## 2. Control measures relied on for attainment

For demonstrating attainment of the CO standard, the Revised 1999 CO Plan relies primarily on reductions from the VEI and CBG programs as well as much smaller reductions from three other measures, traffic synchronization, intelligent transportation systems, and deferring emissions associated with government activities. See Revised 1999 CO Plan, Figure 9-1. We have previously approved all of these measures. See 68 FR 2912, 69 FR 10161, 64 FR 60678, and 67 FR 48718.

As part of these approvals, we have evaluated each of these

measures to ensure that they meet our SIP enforceability criteria. These criteria ensure that the measure's compliance requirements - applicability, performance standards, compliance schedule, and monitoring methods - are clear.

We have also evaluated the CO emissions reductions credited to each measure in the attainment demonstration to ensure they are reasonable. We found that the emission reduction estimates for each source category are consistent with research on the applicable control methods and are appropriately applied in the attainment demonstrations. Finally, we have determined that the measures relied on for attainment are being expeditiously implemented. See EPA TSD, section "Attainment Demonstration".

#### *F. Reasonable Further Progress*

CAA section 172(c)(2) requires nonattainment plans to provide for reasonable further progress (RFP), which is defined in section 171(1) as "such annual incremental reductions in emissions of the relevant air pollutant as are required by this part [part D of title I] or may reasonably be required by the Administrator for the purpose of ensuring attainment of the applicable national ambient air quality standard by the applicable date." For serious CO nonattainment areas, CAA section 187(a)(7) also requires the plans to provide for such specific annual emission reductions as are necessary to attain the standard by the applicable attainment date.

We find that the Revised 1999 CO Plan provides for RFP and for such specific annual emission reductions as are necessary to attain the standard by the December 31, 2000 as required by the Act.<sup>4</sup> The Revised 1999 CO Plan includes an RFP demonstration for the years 1994, 1999, and 2000. 1994 is the base year, 1999 is the year before the two largest measures in the Revised 1999 CO Plan (revisions to the VEI and CBG programs) were implemented, and 2000 is the attainment year. Total design day CO emissions drop from 687 mtpd in 1994 to 686 mtpd in 1999 to 640 mtpd in 2000. Revised 1999 CO Plan, Figure 9-4. Total CO emissions drop very little from 1994 to 1999 primarily because a large increase in emissions from non-road engines offsets the decreases in on-road emissions. See MAG TSD, Table II-4.

#### *G. VMT Tracking and Reporting*

CAA section 187(a)(2)(A) requires each State with a serious CO nonattainment area to forecast VMT in the nonattainment area for each year before the attainment year. These forecasts must be developed following guidance issued by EPA in consultation with the US Department of Transportation. This section also requires the plan to provide for annual updates of the forecasts to be submitted along with a report containing estimates of actual VMT for the year. We provided detailed guidance to States regarding

---

<sup>4</sup> This finding is further supported by our finding that the area attained the CO standard by December 31, 2000. (68 FR 55008, effective November 21, 2003)

the VMT tracking and reporting requirement in "Section 187 VMT Forecasting and Tracking Guidance," USEPA, January 1992.

We find that the Revised 1999 CO Plan fully complies with CAA section 187(a)(2)(A) and our guidance implementing that section. Specifically, the VMT forecasts in the Revised 1999 CO Plan were developed consistent with applicable EPA guidance including 1) forecasting VMT using a validated network-based travel demand model; 2) clearly identifying a VMT tracking area; 3) estimating actual VMT on Highway Performance Monitoring System (HPMS) traffic counts adjusted in a reasonable manner to cover the entire VMT tracking area; and 4) committing to submitting annual reports meeting EPA requirements.

MAG has submitted VMT tracking reports for the years 1999, 2000, and 2001. These reports follow EPA guidance regarding content and procedures for determining actual VMT. All three reports show that VMT levels in the metropolitan Phoenix CO nonattainment area remain within the levels projected in the Revised 1999 CO Plan. See "1999 Vehicle Miles Travel Forecasting and Tracking Report," MAG, September 22, 1999 (submitted September 23, 1999); "2000 Vehicle Miles Travel Forecasting and Tracking Report," MAG, September 11, 2000 (submitted September 21, 2000); and "2001 Vehicle Miles Travel Forecasting and Tracking Report," MAG, October 23, 2001 (submitted November 14, 2001).



#### *H. Transportation Control Measures to Offset Growth in Emissions*

CAA section 187(b)(2) requires serious area CO plans to identify and adopt "specific and enforceable transportation control strategies and TCMS to offset any growth in emissions from growth in VMT and numbers of trips" and to achieve reductions in mobile source emissions as necessary in conjunction with other measures to comply with the applicable periodic emission reduction and attainment requirements.

We interpret this provision to require that sufficient measures be adopted so that projected motor vehicle CO emissions will never be higher during the CO season in one year than during the CO season in the year before. Where growth in VMT and trips would otherwise cause a motor vehicle emissions upturn, this upturn must be prevented. General Preamble at 13521.

The Revised 1999 CO Plan provides sufficient information for us to conclude that on-road mobile source emissions will decrease from the base year of 1994 until the attainment year of 2000 and this decrease will occur even before we take into account the additional controls in the Revised 1999 CO Plan. Moreover, the Revised 1999 CO Plan provides for expeditious attainment of the CO standard. Therefore, we propose to find that the Revised 1999 CO Plan meets CAA section 187(b)(2).

#### *I. Contingency Measures*

CAA section 172(c)(9) requires that nonattainment area SIPs

provide for the implementation of specific measures to be undertaken if the area fails to make RFP or attain by its attainment deadline. CAA section 187(a)(7) requires that serious CO nonattainment area plans also contain contingency measures that would be implemented if the area exceeds its vehicle mile traveled (VMT) projections. Both sections require that these contingency measures are to take effect without further action by the State or the Administrator. The Act does not specify how many contingency measures are necessary nor does it specify the magnitude of the emission reductions (or VMT reductions) they must produce. In policy and in previous rulemaking we have suggested that one appropriate choice of contingency measures would be to provide for the implementation of sufficient VMT reductions or emissions reductions to counteract the effect of one year's growth in VMT in order to ensure continued progress while the plan was being revised to correct any deficiencies that resulted in a failure to attain, make RFP, or keep within VMT forecasts. General Preamble at 13532.

Under applicable Agency policy, states may use already adopted and implemented measures as contingency measures, *provided* that those measures' emission reductions are not needed to demonstrate expeditious attainment and/or RFP and are not included in either the attainment or RFP demonstrations. This approach effectively allows for the early implementation of

contingency measures.<sup>5</sup>

The Revised 1999 CO Plan includes 9 contingency measures, all of which have already been adopted and implemented. See Table Con-1 in the EPA TSD. Collectively these measures result in approximately a 4.1 percent reduction in total CO emissions in 2001 and provide emission reductions from each of the largest categories of CO emissions in the Phoenix area: woodburning, gasoline on-road vehicles, and gasoline non road engines. See Revised 1999 CO Plan, p. 9-12.

The annualized VMT growth in the Phoenix area from 2000 to 2005 is projected to be 2.6 percent. On-road mobile source account for 67 percent of the 2000 base case (e.g., prior to control) CO inventory of 714.9 mtpd. Revised 1999 CO Plan, p. 8-12. Therefore, one year's growth in VMT is equivalent to  $0.67 \times 2.6$  percent or 1.7 percent (12.2 mtpd) of the 2000 base case inventory.

One of the eight contingency measures listed in the Revised 1999 CO Plan is no longer applicable. Funding for the lawn mower reduction program ended in FY 2001. Prior to 2001, the program resulted in the retirement of a large number of gasoline-powered commercial and residential lawn mowers and other hand-held

---

<sup>5</sup>See memorandum, G. T. Helms, Chief, Ozone/Carbon Monoxide Programs Branch, OAQPS to Air Branch Chiefs, Regions I-X, "Early Implementation of Contingency Measures for Ozone and Carbon Monoxide (CO) Nonattainment Areas," August 13, 1993 ("Helms memo").

gasoline-powered equipment.<sup>6</sup> However, because these lawnmowers have been presumably replaced with cleaner units earlier than they would otherwise have been replaced, the program will have continuing effects for several years after 2000.

The use of an adopted and implemented federal program, the national LEV program, as a contingency measure is acceptable. The purpose of contingency measures is to assure continued progress towards attainment in an area while its SIP is being revised to correct for a failure to attain or to make RFP or to deal with higher than expected VMT growth. To the extent that federal programs provide for this continued progress and the State has not otherwise relied on the program to demonstrate attainment or RFP, the State may rely on that measure.<sup>7</sup>

We have approved the other seven contingency measures into the Arizona SIP in earlier rulemakings. See 67 FR 48718 (July 25, 2002) and 68 FR 2912 (January 22, 2003).

Because the contingency measures collectively provide for emission reductions consistent with EPA policy and meet the statutory requirement that they "take effect without further

---

<sup>6</sup> In 1998/99, the program retired 1780 old, polluting gas mowers and 563 other pieces of garden equipment. See "Current Status of Carbon Monoxide," Maricopa County Environmental Services Department, (January 2000).

<sup>7</sup> However, if the federal program is delayed or does not generate the expected emission reductions, the State would have to revise its contingency measures to assure adequate emission reductions or face a finding of SIP inadequacy.

action by the State or the Administrator," we propose to find that the Revised 1999 CO Plan meets the CAA sections 172(c)(9) and 187(a)(7) requirement for contingency measures. We also propose to find that the emissions reductions resulting from these contingency measures are not already accounted for in the Phoenix CO nonattainment area's RFP or attainment demonstrations.

*J. Enhanced I/M Program*

CAA section 187(b)(6) requires that all serious CO nonattainment areas implement an enhanced I/M program which complies with EPA guidance. We issued our initial rule containing the requirements for enhanced I/M programs in 1992 and have amended those rules several times since. For more information on the requirements for enhanced I/M programs, see 60 FR 22518 (May 8, 1995) (initial approval of Arizona's enhanced and basic I/M program) and 67 FR 52433 (August 12, 2002) (proposed approval of revisions to Arizona's enhanced and basic I/M program).

Arizona first submitted the legislation and regulations for the Maricopa County enhanced vehicle emission inspection program in 1994 as part of its moderate area plans for CO and ozone. Subsequently, Arizona made a number of modifications to its program including revising the testing protocol, requiring on-board diagnostic system testing, expanding the exemption to the latest five model years, changing the waiver provisions, and removing the remote sensing element of the program. The State

resubmitted the program for approval in 2001. See 2001 I/M submittal.

In a separate action, we approved Arizona's vehicle emission inspection program for the Phoenix area as meeting the enhanced I/M program requirements of CAA section 187(b)(6) and our regulations. See 68 FR 2912 (January 22, 2003).

*K. Wintertime Oxygenated Gasoline Program*

CAA section 211(m) requires states with CO nonattainment areas with design values of 9.5 ppm or higher to implement a wintertime oxygenated gasoline program requiring that gasoline contain not less than 2.7 percent oxygen by weight. All serious CO nonattainment areas, which by definition have design values exceeding the 211(m) thresholds, must include an oxygenated gasoline program in their SIPs. See also CAA § 187(b)(3). Under both 211(m) and 187(b)(3), the program is to apply to all gasoline sold, supplied, offered for sale or supply, dispensed, transported or introduced into commerce in the consolidated metropolitan statistical area (CMSA) or, if no CMSA exists, the metropolitan statistical area (MSA).

1. History of state program

Arizona first adopted a wintertime oxygenated gasoline program in 1988, before sections 187(b) and 211(m) were added to the Act as part of the 1990 Clean Air Act Amendments. The original State wintertime oxygenated gasoline program applied

throughout Maricopa County and established a fairly complicated scheme of shifting averages and exemptions. In general, however, it required leaded gasoline to contain between 2.4 and 3.7 percent oxygen by weight and unleaded gasoline to contain between 1.9 and 3.7 percent oxygen by weight. The program applied from September 30 through March 31 of each year. EPA approved this program into the SIP finding the fuel control measure was not preempted under CAA section 211(c)(4) and would, in any event, provide necessary CO emission reductions. See 53 FR 30224 (Aug. 10, 1988).

The August 10, 1988 SIP approval, however, was vacated by the Ninth Circuit Court of Appeals in Delaney v. EPA, 898 F.2d 687 (9<sup>th</sup> Cir. 1990). In 1991, in response to an order from the court, EPA disapproved the Maricopa CO SIP including the State's wintertime oxygenated gasoline requirement. 56 FR 5458 (Feb. 11, 1991). In its place, EPA adopted a FIP with an oxygenated gasoline program. EPA modeled the FIP program on the then newly adopted requirements in 211(m). It required all gasoline sold in the Maricopa nonattainment area to contain a minimum oxygen content of 2.7 percent by weight from October 1 to March 31 of each year. In the FIP notice, we noted that section 211(m) added by the 1990 Clean Air Amendments would require Maricopa to adopt a similar state requirement beginning in 1992. As a result, we anticipated that the oxygenated gasoline requirement in the FIP

would only be in effect for one year.

Arizona adopted new oxygenated gasoline requirements on June 11, 1991 in Arizona House Bill 2181. On March 9, 1992, EPA approved Arizona's revised wintertime oxygenated gasoline program into the SIP. 57 FR 8268. The revised program required that all gasoline in the Maricopa nonattainment area contain no less than 2.7 percent oxygen by weight from September 30 to March 31 of each year. In that approval, EPA noted that the area covered by the program did not include the entire MSA as required under section 211(m). Instead, the program applied only to the Maricopa CO nonattainment area, which was then defined as the MAG urban planning area. As a result, we found the State program could be approved into the SIP as an equivalent substitution for the FIP program but concluded that Arizona would need to modify the program further by November 1, 1992 in order to meet all the requirements of 211(m). Id.

Since our March 1992 approval, Arizona has made a number of changes to the wintertime oxygenated gasoline program. In 1998, EPA approved changes to the wintertime program as part of our approval of the State's new Cleaner Burning Gasoline (CBG) program. 63 FR 6653 (Feb. 10, 1998). The wintertime program approved at that time continued to require that gasoline supplied



or sold in the Maricopa CO nonattainment area<sup>8</sup> contain a minimum 2.7 percent oxygen by weight, but changed the control period to November 1 through March 31. In our approval, we did not address compliance with 211(m), instead finding the revisions necessary for attainment of the ozone and PM-10 NAAQS.

On March 4, 2004, we approved into the SIP further revisions to the State CBG program, including changes to the wintertime oxygenated gasoline requirements. 69 FR 10161. The current SIP-approved wintertime program requires all gasoline sold in Maricopa County and in parts of Pinal and Yavapai Counties from November 1 to March 31 to contain a minimum of 3.5 percent oxygen by weight. Although Arizona's wintertime CBG program adopted by the State on July 18, 1988 covered the MSA, as required by 211(m), subsequent changes to the covered area that have been approved into the SIP (i.e., the inclusion of portions of Yavapai and Pinal Counties) do not correspond to the entire MSA, which itself has been subsequently modified by the Census Bureau.<sup>9</sup>

## 2. Compliance with 211(m)

---

<sup>8</sup> The revised rules established new defined "areas" for specifying the applicability of their requirements. The wintertime oxygenated gasoline requirements apply to "Area A", which was originally defined as the Maricopa County CO nonattainment area. As explained below, Arizona has made a number of changes to the definition of Area A to affect the applicability of the fuel requirements.

<sup>9</sup> All of Pinal County was added to the definition of the Phoenix-Mesa MSA by the 1990 census.

The State's wintertime oxygenated gasoline program approved in the SIP has provided significant CO emissions reductions in the Maricopa CO nonattainment area and has helped the area attain the CO NAAQS, as evidenced by the Phoenix area's lack of violations of the CO standard since 1997, when the program was initiated. As a result, we are proposing to find that further changes to the program to meet the specific requirements of 211(m), including the requirement that the program apply to the entire MSA, are not required under the Act.

Section 211(m)(6) provides:

Nothing in this subsection shall be interpreted as requiring an oxygenated gasoline program in an area which is in attainment for carbon monoxide, except that in a carbon monoxide nonattainment area which is redesignated as attainment for carbon monoxide, the requirements of this subsection shall remain in effect to the extent such program is necessary to maintain such standard thereafter in the area.

See also CAA § 187(b)(3)(B) (providing that a wintertime oxygenated program is not required for an area if the State demonstrates that the revision is not necessary for attainment and maintenance of the CO NAAQS). We have interpreted this language to mean that once EPA determines that a CO nonattainment area is actually attaining the CO NAAQS and the area demonstrates

it does not need a program meeting 211(m), section 211(m) no longer requires submittal of a SIP revision so long as the area continues to maintain the standard. See, e.g., 60 FR 62741 (Dec. 7, 1995) (waiving 211(m) requirements for portions of the Camden, New Jersey area).

Today's finding that the State need not submit a program complying with section 211(m) does not mean the State can abandon its wintertime oxygenated gasoline program. The program remains approved in the SIP. Any revision to remove these requirements from the SP would be subject to the requirements of section 110(1).

#### *L. General SIP Requirements*

CAA section 110(a)(2)(C) requires SIPs to include a program to provide for the enforcement of SIP measures. Section 110(a)(2)(E)(i) requires that SIPs provide necessary assurances that the State (or the general purpose local government) will have adequate personnel, funding and authority under State law to implement the submitted SIP. Finally, section 110(a)(2)(E)(iii) requires SIPs to include necessary assurances that where a State has relied on a local or regional government, agency or instrumentality for the implementation of any plan provision, the State has responsibility for ensuring adequate implementation of the plan provision.

The principal control measures in the Revised 1999 CO Plan

are Arizona's VEI program, the wintertime CBG program, and Maricopa County's woodburning restrictions program. We approved these programs at 68 FR 2912 (January 12, 2003), 69 FR 10161 (March 4, 2004), 64 FR 60678, and 67 FR 48718 (July 25, 2002) respectively. As part of our approval actions, we found that Arizona had adequate personnel, funding and authority to implement these programs and had adequately provided for the enforcement of these programs.

We have previously found that Arizona law includes the necessary assurances that where a State has relied on a local or regional government agency or instrumentality for the implementation of any plan provision, the State has responsibility for ensuring adequate implementation of the plan provision. 60 FR 18010, 18019 (April 10, 1995).

#### **V. The CAA's Requirements for Serious CO Maintenance Plans and Redesignation Requests**

Under the Clean Air Act, we can change designations if acceptable data are available and if certain other requirements are met. See CAA Section 107(d)(3)(D). Section 107(d)(3)(E) of the CAA provides that the Administrator may promulgate a redesignation of a nonattainment area to attainment if the following five criteria are met:

(i) the Administrator determines that the area has attained the national ambient air quality standard;

(ii) the Administrator has fully approved the applicable implementation plan for the area under CAA section 110(k);

(iii) the Administrator determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable implementation plan and the applicable Federal air pollutant control regulations and other permanent and enforceable reductions;

(iv) the Administrator has fully approved a maintenance plan for the area as meeting the requirements of CAA section 175A; and

(v) the State containing the area has met all requirements applicable to the area under section 110 and part D of the CAA.

Before we can approve the redesignation request, we must determine that all applicable SIP elements have been fully approved. Approval of the applicable SIP elements may occur simultaneously with the final approval of the redesignation request.

#### **VI. The MAG CO Redesignation Request and Maintenance Plan's Compliance with the CAA's Requirements for CO Redesignation Requests and Maintenance Plans**

We are proposing to approve the MAG Carbon Monoxide Redesignation Request and Maintenance Plan for the Maricopa County Nonattainment Area, May 2003 ("MAG CO Redesignation Request and Maintenance Plan"). The MAG CO Redesignation Request

and Maintenance Plan was developed by the Maricopa Association of Governments (MAG), the lead air quality planning agency in Maricopa County. The Arizona Department of Environmental Quality (ADEQ) submitted this plan as a revision to the Arizona SIP on June 16, 2003 and EPA received it on June 24, 2003. We refer to this plan in this document as the MAG CO redesignation request and maintenance plan, the MAG maintenance plan, or variations of these.

As submitted, the MAG CO Redesignation Request and Maintenance Plan consists of the main plan document and one volume of technical appendices. The MAG CO Redesignation Request and Maintenance Plan contains 1994 and 1999 emission inventories and projected inventories for 2006 and 2015, a modeling demonstration showing maintenance of the CO standard through 2015, a list of committed control measures, mobile source emissions budgets for 2006 and 2015, and contingency measures. It uses UAM and the CAL3QHC microscale model to model air quality in 1994 as a base year and in 2006 as an interim year and 2015 as the maintenance year and demonstrates maintenance of the CO standard through 2015.

The MAG CO Redesignation Request and Maintenance Plan shows that the principal sources contributing to past CO exceedances are gasoline on-road motor vehicles, gasoline non-road engines, and woodburning. MAG CO Redesignation Request and Maintenance

Plan, p. ES-5.

In earlier actions, we have already approved revisions to Arizona's CBG program and to Arizona's VEI program as well as the Maricopa County Woodburning curtailment program. 69 FR 10161 (March 4, 2004), 68 FR 2912 (January 22, 2003), 64 FR 60678 (November 8, 1999) and 67 FR 48718 (July 25, 2002). The revisions to these programs are the principal controls relied on in the MAG CO Redesignation Request and Maintenance Plan to demonstrate attainment. We have also previously approved the commitments by the Phoenix area cities and towns to adopt and/or implement CO control measures. We approved these commitments as part of the serious area PM-10 plan approval on July 25, 2002 at 67 FR 48718. See 40 CFR 52.120(c)(100).

We have reviewed the MAG CO Redesignation Request and Maintenance Plan and believe that proposing to approve the request is warranted, consistent with the requirements of CAA section 107(d)(3)(E). The following sections of this notice describe how the requirements of section 107(d)(3)(E) are addressed by the MAG submittal.

#### *A. General SIP Requirements*

Section 110(k) of the CAA addresses our actions on submissions of revisions to a SIP. The CAA requires States to observe certain procedural requirements in developing SIP revisions for submittal to us. Section 110(a)(2) of the CAA

requires that each SIP revision be adopted after reasonable notice and public hearing. This must occur prior to the revision being submitted by a State to us.

MAG held a public hearing for the MAG CO Redesignation Request and Maintenance Plan on May 5, 2003. The MAG Regional Council adopted the MAG CO Redesignation Request and Maintenance Plan on May 28, 2003. These SIP revisions were adopted and submitted by ADEQ to us on June 16, 2003. We received the submittal on June 24, 2003.

We have evaluated MAG's submittal and have determined that the State met the requirements for reasonable notice and public hearing under section 110(a)(2) of the CAA. The MAG CO Redesignation Request and Maintenance Plan was deemed complete by operation of law six months after the submittal date.

#### *B. Attainment of the CO NAAQS*

Section 107(d)(3)(E)(i) of the CAA states that for an area to be redesignated to attainment, the Administrator must determine that the area has attained the applicable NAAQS. As described in 40 CFR part 50.8, the national primary ambient air quality standard for carbon monoxide is 9 parts per million (10 milligrams per cubic meter) for an 8-hour average concentration not to be exceeded more than once per year. 40 CFR part 50.8 continues by stating that the levels of CO in the ambient air shall be measured by a reference method based on 40 CFR part 50,



Appendix C and designated in accordance with 40 CFR part 53. We consider an area to be in attainment if each of the CO ambient air quality monitors in the area does not have more than one exceedance of the CO standard over a one-year period. See 40 CFR part 50.8 and 40 CFR part 50, Appendix C. If any monitor in the area's CO monitoring network records more than one exceedance of the CO standard during a one-year calendar period, then the area is in violation of the CO NAAQS.

In addition, our interpretation of the CAA and EPA national policy has been that an area seeking redesignation to attainment must show attainment of the CO NAAQS for at least a continuous two-year calendar period. In addition, the area must also continue to show attainment through the date that we promulgate the redesignation in the Federal Register.

December 31, 2000 was the attainment date for the Maricopa County serious CO nonattainment area. We published a finding of attainment of the CO standard for the Maricopa County nonattainment area on September 22, 2003 (see 68 FR 55008). In our finding, we noted that not only did Maricopa County have the required clean data for the two years preceding the attainment date, but also that the Maricopa County nonattainment area has been in attainment for the national standards for CO since 1997. Further information on CO monitoring is presented in Chapter 3, page 3-15 of the MAG CO Redesignation Request and Maintenance

Plan, and in our finding of attainment (see 68 FR 55008, September 22, 2003).

Therefore, we believe the Maricopa County area has met the first component for redesignation: demonstration of attainment of the CO NAAQS. We note too that MAG has indicated in the MAG CO Redesignation Request and Maintenance Plan that ADEQ and MCESD will continue to operate an appropriate air quality monitoring network of National Ambient Monitoring Stations (NAMS) and State and Local Air Monitoring Stations (SLAMS) monitors in accordance with 40 CFR Part 58 to verify the continued attainment of the CO standard.

*C. Meeting Applicable Requirements of Section 110 and Part D*

To be redesignated to attainment, section 107(d)(3)(E)(v) requires that an area must meet all applicable requirements under section 110 and part D of the CAA. We interpret section 107(d)(3)(E)(v) to mean that for a redesignation to be approved by us, the State must meet all requirements that applied to the subject area prior to or at the time of submission of a complete redesignation request.

1. CAA section 110 requirements

The Maricopa County nonattainment area was initially classified as moderate for CO. MAG submitted the 1993 Carbon Monoxide Plan by November 15, 1993 in order to meet the moderate area requirements. An addendum to this plan was submitted in March

1994. On July 29, 1996, the nonattainment area was reclassified to serious effective August 28, 1996 due to failure to attain the CO standard by December 31, 1995. The new attainment date was December 31, 2000.

On July 8, 1999, ADEQ submitted the 1999 CO Plan to EPA. This submittal contained an attainment demonstration for December 2000. The submittal was found complete on September 9, 1999.

During the 2000 legislative session, the Arizona Legislature passed House Bill (HB) 2104, which repealed the Random Onroad Testing Requirements (Remote Sensing Program) from the Vehicle Emissions Inspection (VEI) program. EPA indicated that the 1999 CO Plan would have to be revised to reflect this legislative change. MAG conducted new air quality modeling and documented the impact of the repeal of the remote sensing program in the Revised 1999 CO Plan, dated March 2001.

On March 30, 2001, ADEQ submitted the Revised 1999 CO Plan to EPA. We found the submittal complete on October 9, 2001. We have analyzed the SIP elements in the Revised 1999 CO Plan that we are proposing for approval as part our action today, and have determined that they comply with the relevant requirements of section 110(a)(2).

On June 16, 2003, ADEQ submitted the MAG Carbon Monoxide Redesignation Request and Maintenance Plan for the Maricopa County Nonattainment Area, May 2003. The submittal was deemed complete by

operation of law six months after receipt by EPA.

## 2. Part D Requirements

Before the Maricopa County serious CO nonattainment area may be redesignated to attainment, the State must have fulfilled the applicable requirements of part D. Under part D, an area's classification indicates the requirements to which it was subject. Subpart 1 of part D sets forth the basic nonattainment requirements applicable to all nonattainment areas. Subpart 3 of part D contains specific provisions for serious CO nonattainment areas.

The relevant subpart 1 requirements are contained in sections 172(c) and 176. Our General Preamble (see 57 FR 13529, 13533, April 16, 1992) provides EPA's interpretation of the CAA requirements for serious CO nonattainment areas.

The General Preamble provides that the applicable requirements of CAA section 172 are 172(c)(3) [emissions inventory], 172(c)(5) [the section 110(a)(2) air quality monitoring requirements], and 172(c)(9) [contingency measures]. It is also worth noting that we interpret the requirements of sections 172(c)(2) [reasonable further progress - RFP] and 172(c)(6) [other measures] as being irrelevant to a redesignation request because they only have meaning for an area that is not

attaining the standard.<sup>10</sup> Finally, the State has not sought to exercise the options that would trigger sections 172(c)(4) [identification of certain emissions increases] and 172(c)(8) [equivalent techniques]. Thus, these provisions are also not relevant to the redesignation request.

Regarding the requirements of sections 172(c)(3) [emissions inventory] and 172(c)(9) [contingency measures], please refer to our discussion below of sections 187(a)(1) and 187(a)(3), which are provisions of subpart 3 of part D of the CAA that address the same requirements as sections 172(c)(3) and 172(c)(9).

For the section 172(c)(5) New Source Review (NSR) requirements, the CAA requires all nonattainment areas to meet several requirements regarding NSR, including provisions to ensure that increased emissions will not result from any new or modified major stationary sources and a general offset rule. We have determined that areas being redesignated from nonattainment to attainment do not need to comply with the requirement that an NSR program be approved prior to redesignation provided that the area demonstrates maintenance of the standard without part D nonattainment NSR in effect. The rationale for this decision is described in a memorandum from Mary Nichols dated October 12, 1994

---

<sup>10</sup> See EPA's September 4, 1992 John Calcagni memorandum entitled "Procedures for Processing Requests to Redesignate Areas to Attainment", and the General Preamble, 57 FR at 13564, dated April 16, 1992.

("Part D New Source Review (part D NSR) Requirements for Areas Requesting Redesignation to Attainment"). We have determined that the maintenance demonstration for Maricopa County does not rely on nonattainment NSR. Therefore, the State need not have a fully-approved nonattainment NSR program prior to approval of the redesignation request.

Prevention of Significant Deterioration (PSD) is the replacement for NSR, and part of the obligation under PSD is for a new source to review increment consumption and maintenance of the air quality standards. The PSD program requires stationary sources to undergo preconstruction review before facilities are constructed or modified, and to apply Best Available Control Technology (BACT). This program will apply to any major source wishing to locate in the Maricopa County area once the area is redesignated to attainment. Effective November 22, 1993, we delegated PSD authority to Maricopa County via a PSD Delegation Agreement (59 FR 1730, January 12, 1994).

For the CAA section 172(c)(7) provisions [compliance with the CAA section 110(a)(2) air quality monitoring requirements], our interpretations are presented in the General Preamble (57 FR 13535). CO nonattainment areas are to meet the applicable air quality monitoring requirements of section 110(a)(2) of the CAA.

Information concerning CO monitoring in the Maricopa County nonattainment area is included in the Monitoring Network Review

(MNR) prepared by MCESD and submitted to EPA. In Chapter 3, page 3-15 of the MAG CO Redesignation Request and Maintenance Plan, MAG commits to the continued operation of the existing NAMS and SLAMS CO monitors run by ADEQ and MCESD, according to all applicable Federal regulations and guidelines, even after the Maricopa County area is redesignated to attainment for CO. Annual review of the NAMS/SLAMS air quality surveillance system will be conducted in accordance with 40 CFR 58.20(d) to determine whether the system continues to meet the monitoring objectives presented in Appendix D of 40 CFR Part 58.

Section 176 of the CAA contains requirements related to conformity. Although EPA's regulations (see 40 CFR 51.396) require that states adopt transportation conformity provisions in their SIPs for areas designated nonattainment or subject to an EPA-approved maintenance plan, we have decided that a transportation conformity SIP is not an applicable requirement for purposes of evaluating a redesignation request under section 107(d) of the CAA. This decision is reflected in EPA's 1996 approval of the Boston carbon monoxide redesignation (See 61 FR 2918, January 30, 1996).

The relevant subpart 3 provisions were created when the CAA was amended on November 15, 1990. The new CAA requirements for serious CO areas, such as Maricopa County, required that the SIP be revised to include a 1990 base year emissions inventory (CAA

section 187(a)(1)), vehicle miles traveled tracking (CAA section 187(a)(2)(A)), contingency provisions (CAA section 187(a)(3)), corrections to existing motor vehicle inspection and maintenance (I/M) programs (CAA section 187(a)(4)), periodic emissions inventories (CAA section 187(a)(5)), enhanced motor vehicle I/M program (CAA section 187(a)(6)), a modeled attainment demonstration with specific annual emissions reductions (CAA section 187(a)(7)) and the implementation of an oxygenated fuels program (CAA section 211(m)). How the State met these requirements and our approvals are described earlier in this notice.

Regarding section 187(a)(1) of the CAA (base year emissions inventory), the State submitted a SIP revision for a 1990 base year inventory (annual and average daily emissions) as well as projected 1995 and 2005 inventories for the entire Maricopa County nonattainment area on November 15, 1993 as part of the MAG 1993 Carbon Monoxide Plan for the Maricopa County Area ("CO Plan"). On April 4, 1994, ADEQ submitted updated and improved inventories as part of MAG's 1993 Carbon Monoxide Plan for the Maricopa County Area Addendum ("Addendum").<sup>11</sup> These revised inventories reflected

---

<sup>11</sup>On August 9, 1993, EPA had issued a SIP call under section 110(k)(5) of the CAA that required Arizona to submit a plan to EPA that demonstrated attainment of the CO NAAQS in the Phoenix area by December 31, 1995. As an area with a design value less than 12.7 ppm, the State would not otherwise have been required to submit an attainment plan for the Phoenix area. See section 187(a). CAA section 187(a)(1) requires the submittal of a comprehensive, accurate, current inventory of actual emissions for all CO nonattainment areas whether or not they have a



adjustments to growth factors and the impact of measures in Arizona House Bill 2001. Both submittals became complete by operation of law under CAA section 110(k)(1)(B) on May 15, 1994 and October 8, 1994, respectively.

We proposed approval of the 1990 base year inventory on September 18, 1996 (61 FR 49087), and did not receive any comments on our proposed action. We will finalize that proposed action in our final rulemaking on today's proposed rule.

Regarding section 187(a)(5) of the CAA (periodic emissions inventories), see Section IV.B. "Emission Inventory" of this Federal Register notice for information on the 1993 and 1996 emissions inventories for Maricopa County for CO. We are proposing to approve these inventories in our action today.

*D. Fully-Approved SIP Under Section 110(k) of the CAA*

Section 107(d)(3)(E)(ii) of the CAA states that for an area to be redesignated to attainment, it must be determined that the Administrator has fully approved the applicable implementation plan for the area under section 110(k).

As noted above, in today's action EPA is approving the SIP revision demonstrating attainment for the Maricopa County serious CO nonattainment area that was required by the CAA. The bump-up of the Maricopa County CO nonattainment area from moderate to serious for CO superseded the remaining moderate CO nonattainment area

---

separate requirement to submit an attainment demonstration.

requirements for the area. Thus, with a final rule to approve the Maricopa County attainment demonstration, redesignation request, and maintenance plan, we will have fully approved the Maricopa County CO element of the SIP under section 110(k) of the CAA.

*E. Improvement in Air Quality Due to Permanent and Enforceable Measures*

Section 107(d)(3)(E)(iii) of the CAA provides that for an area to be redesignated to attainment, the Administrator must determine that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable implementation plan, implementation of applicable Federal air pollutant control regulations, and other permanent and enforceable reductions.

As part of our action today, we are approving the Revised 1999 CO Plan. This plan is primarily based on emissions reductions from the wintertime oxygenated fuels program, the VEI program, traffic synchronization, and intelligent transportation systems (ITS) measures. These programs are further described in Chapter Five of the Revised 1999 CO Plan.

As described in Chapter Two, pages 2-11 to 2-15 of the MAG CO Redesignation Request and Maintenance Plan, significant additional emissions reductions were realized from Maricopa County's basic inspection and maintenance program (applicable to vehicles 1966 and newer), and beginning in 2000, the enhanced I/M program

(applicable to vehicles 1966 and newer, with an exemption for vehicles of the five most recent model years).

Oxygenated fuels are gasolines that are blended with additives that increase the level of oxygen in the fuel and consequently reduce CO tailpipe emissions. Arizona's Cleaner Burning Gasoline (CBG) rule contains the oxygenated fuels provisions for the Maricopa CO nonattainment area. As approved by EPA on March 4, 2004 (see 69 FR 10161), Arizona's CBG program requires all Maricopa County-area gas stations in Area A<sup>12</sup> to sell fuels containing a 3.5 percent minimum oxygen content (by weight) during the wintertime season, which runs from November 2 to March 31 of each year.

Maricopa County has also been implementing the requirements of its clean burning fireplace ordinances. The Arizona legislature passed SB 1427 in 1998 which required cities, towns, and counties in Area A to adopt, implement, and enforce an ordinance that complies with MAG's clean burning fireplace standards by December 31, 1998. The ordinance allows only the use of permanently-installed gas or electric log inserts, fireplaces, woodstoves, or other appliances that are certified by EPA, tested and listed by a nationally recognized testing agency to meet federal performance standards, or determined by the Maricopa County Control Officer to

---

<sup>12</sup> Area A includes the urbanized portion of Maricopa County, a small portion of southern Yavapai County, and the western portions of Pinal County.

meet federal performance standards.

We have evaluated the various State and Federal control measures, the original 1990 base year emission inventory, and the 1993, and 1996 periodic emissions inventories, and believe that the improvement in air quality in the Maricopa County nonattainment area has resulted from emissions reductions that are permanent and enforceable.

*F. Fully-Approved Maintenance Plan under Section 175A*

Section 107(d)(3)(E)(iv) of the CAA provides that for an area to be redesignated to attainment, the Administrator must have fully approved a maintenance plan for the area meeting the requirements of section 175A of the CAA.

Section 175A of the CAA sets forth the elements of a maintenance plan for areas seeking redesignation from nonattainment to attainment. The maintenance plan must demonstrate continued attainment of the applicable NAAQS for at least ten years after the Administrator approves a redesignation to attainment. Eight years after the promulgation of the redesignation, the State must submit a revised maintenance plan that demonstrates continued attainment for the subsequent ten-year period following the initial ten-year maintenance period. To address the possibility of future NAAQS violations, the maintenance plan must contain contingency measures, with a schedule for adoption and implementation, that are adequate to

assure prompt correction of a violation. In addition, we issued further maintenance plan interpretations in the "General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990" (57 FR 13498, April 16, 1992), "General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990: Supplemental" (57 FR 18070, April 28, 1992), and the EPA guidance memorandum entitled "Procedures for Processing Requests to Redesignate Areas to Attainment" from John Calcagni, Director, Air Quality Management Division, Office of Air Quality Planning and Standards, to Regional Air Division Directors, dated September 4, 1992 (hereafter referred to as the "Calcagni memo"). In this Federal Register action, EPA is proposing approval of the maintenance plan for the Maricopa County CO nonattainment area because we believe, as detailed below, that MAG's CO Redesignation Request and Maintenance Plan submittal meets the requirements of section 175A and is consistent with the documents referenced above. Our analysis of the pertinent maintenance plan requirements, with reference to MAG's CO Redesignation Request and Maintenance Plan, is provided below.

#### 1. Emissions Inventories - Attainment Year and Projections

EPA's interpretation of the CAA section 175A maintenance plan requirements are generally provided in the General Preamble (see 57 FR 13498, April 16, 1992) and the Calcagni memo referenced above. Under our interpretations, areas seeking to redesignate to

attainment for CO may demonstrate future maintenance of the CO NAAQS either by showing that future CO emissions will be equal to or less than the attainment year emissions or by providing a modeling demonstration. However, under the CAA, many areas (such as Maricopa County) were required to submit a modeled attainment demonstration to show that reductions in emissions would be sufficient to attain the applicable NAAQS. For these areas, the maintenance demonstration is to be based on the same level of modeling (see the "Calcagni memo"). For the Maricopa County area, this involved the use of EPA's Urban Airshed Model (UAM) in conjunction with intersection hotspot modeling using the CAL3QHC model.

The MAG CO Redesignation Request and Maintenance Plan submitted by ADEQ on June 16, 2003 included comprehensive emissions inventories of CO emissions for the Maricopa County area. These inventories include emissions from stationary point sources, area sources, non-road mobile sources, and on-road mobile sources. MAG used the 1994 base year inventory, from the Revised 1999 CO Plan received by EPA on April 2, 2001, and included an interim-year projection for 2006 along with the final maintenance year of 2015. More detailed descriptions of the 1994 base year inventory from the Revised 1999 CO Plan, the 2006 projected inventory, and the 2015 projected inventory are documented in the MAG redesignation request and maintenance plan on page 3-8, and in

the State's TSD in Appendix A, Exhibit 1. The State's submittal contains detailed emission inventory information that was prepared in accordance with EPA guidance. Summary emissions figures from the 1994 base year, the 2015 maintenance year and the interim projected year 2006 are provided in Table 2 below.

**Table 2. Summary of CO Emissions in Tons per Day for Maricopa County (For a Friday in December)**

	1994	2006	2015
Point sources	2.5	21.9	32.2
Area sources	21.0	29.7	36.2
Non-road mobile sources	155.1	161.0	169.9
On-road mobile sources	869.6	699.7	662.9
Total*	1048.2	912.3	901.2

\*Total may not equal 100% due to rounding.

We note that based on the information in Table 2, minor increases are projected in years 2006 and 2015 for point sources and area sources. The most significant reductions in the emissions inventory come from the on-road mobile sources category. Since two of the MAG CO Redesignation Request and Maintenance Plan's most significant measures reduce on-road vehicle emissions, namely the cleaner burning gasoline and vehicle emissions inspection programs, these projected emissions reductions are reasonable.

MAG's approach follows EPA guidance on projected emissions, and we believe it is acceptable. Further information on these projected inventories may also be found on page 3-9 of the MAG CO Redesignation Request and Maintenance Plan and in Appendix A, Exhibit 2, Section III-1 of the TSD.

## 2. Demonstration of Maintenance

The Calcagni memo states that where modeling was relied on to demonstrate maintenance, the plan is to contain a summary of the air quality concentrations expected to result from the application of the control strategies. Also, the plan is to identify and describe the dispersion model or other air quality model used to project ambient concentrations.

For the MAG CO maintenance demonstration, MAG used UAM, the standard model for 1-hour CO attainment demonstrations, consistent with EPA guidance in *Guideline for Regulatory Application of the Urban Airshed Model for Areawide Carbon Monoxide* (EPA-450/4-92-011a and b, June 1992; hereafter "Guideline"). Most of the inputs for the modeling in the MAG CO Redesignation Request and Maintenance Plan were identical to those in the Revised 1999 CO Plan. The main differences were in mixing height and in the emissions inputs.

In the MAG CO Redesignation Request and Maintenance Plan, the UAM model's maximum model height was increased slightly to accommodate plume rise from growth in peaking power plants. This



adjustment has a relatively small effect on ground-level CO concentrations. Diagnostic and sensitivity testing showed reasonable agreement with observations after adjustment of the DIFFBREAK parameter, which in UAM is similar to mixing height, the height above ground through which substantial mixing occurs. Adjustment of minimum mixing heights is not ideal, but may be unavoidable in the absence of specific measured data on mixing heights, and has been accepted in other CO plans. Since CO is chemically inert, it is not unreasonable to adjust the air volume available for CO dilution, and thereby adjust CO concentration. This assumes diagnostic testing for other model inputs has been done, as is the case here.

MAG's emission input development process used EPA's MOBILE6 model to estimate on-road mobile source emission factors instead of MOBILE5, per EPA guidance, and newer traffic data were used. Total estimated CO emissions are substantially larger due to the changes in MOBILE model and various traffic and other inputs. On-road emissions for the 1994 episode increased 73%; total emissions from all sources increased 52%. However, modeled peak CO concentrations increased only slightly. Several factors account for the apparent discrepancy between input emissions and output model peak.

First, per EPA guidance, MOBILE6 was used to estimate on-road emissions instead of the older MOBILE5a. One effect mitigating the

higher MAG CO maintenance plan emissions is that while the base case (1994) on-road emissions are higher, they decline faster than in the Revised 1999 CO Plan because of the enhanced effects of vehicle fleet turnover incorporated in MOBILE6. So higher initial emissions in the MAG CO Redesignation Request and Maintenance Plan are still consistent with maintenance of the CO NAAQS later.

Second, the higher emissions in the MAG CO Redesignation Request and Maintenance Plan do not translate into increased peak CO concentrations. Mainly, the higher emissions in the MAG CO Redesignation Request and Maintenance Plan are shifted in time, and spread over a large area and volume; these mitigate the peak-increasing effect of the increased emissions. Revised traffic counts show that more of the emissions occur during the morning commute than during the evening. As a result, the increased emissions occur earlier in the in day, farther from the peak in the 8-hour average, which occurs at 3 am. The assumed spatial distribution of cold start emissions was also different than in the Revised 1999 CO Plan. In the MAG CO Redesignation Request and Maintenance Plan, cold start emissions were distributed to local and arterial roads, but not to freeways; in the Revised 1999 CO Plan, the emissions were distributed to all three facility types. The method used in the MAG CO Redesignation Request and Maintenance Plan is more realistic because cold start emissions occur relatively close to the beginning of trips, when commuting

cars are more likely to be on local roads than on freeways. Another effect of this different spatial allocation of emissions is that they are more dispersed. Because of this and because of changes in various other model inputs, CO emissions are more widely distributed in the MAG CO Redesignation Request and Maintenance Plan.

Finally, as mentioned above, mixing height was increased to improve model performance. This provided a greater volume for dilution of CO emissions, and thus a lower ambient concentration.

A third factor in reconciling higher emissions with a relatively unchanged peak concentration is that, the MAG CO Redesignation Request and Maintenance Plan base case had less error and less negative bias than the Revised 1999 CO Plan's, i.e., it underpredicted by a smaller amount. The highest CO at any monitor in the MAG CO Redesignation Request and Maintenance Plan was about 2% above the peak observation, whereas in the Revised 1999 CO Plan, it was 10% or more below. In summary, the increased emissions in the MAG CO Redesignation Request and Maintenance Plan did in fact show up in the modeling results, but the effect was not to increase the highest peak, but rather to increase concentrations more generally, distributed in time and space.

For microscale modeling with CAL3QHC, the same intersections as in the Revised 1999 CO Plan were used, 27th Ave./Grand/Thomas Rd. and 35th Ave./Grand/Indian School Road. For the attainment

demonstration, the results of the CAL3QHC modeling were combined with that from UAM for the cell containing the intersection, per EPA guidance. CAL3QHC contributions to peak concentrations was generally lower than was modeled for the Revised 1999 CO Plan. As discussed below, the decrease is partly due to updated traffic data. A shift in peak traffic to the morning occurred, which is further from the late-night CO peak. But the main reason for decreased CAL3QHC predictions was the exclusion of cold start emissions from idling emissions at intersections, in accordance with EPA guidance. Most cold start emissions occur within a few minutes of trip starts, so they have little affect on intersection emissions. Despite generally higher UAM predictions in the MAG CO Redesignation Request and Maintenance Plan, at the hotspot intersection locations, overall hotspot predictions are slightly lower. Table 3 lists the maximum combined dispersion modeling (UAM) and intersection modeling (CAL3QHC) results for the maintenance demonstration modeling at the West Indian School Road and Grand Avenue intersections (from MAG CO Redesignation Request and Maintenance Plan, page 3-13).

**Table 3. - MAXIMUM DISPERSION MODELING AND INTERSECTION MODELING RESULTS [in parts per million]**

Intersection	2006	2006	2006	2015	2015	2015
	UAM	CAL3QHC	Total	UAM	CAL3QHC	Total
WISR <sup>1</sup>	7.17	1.08	8.25	6.23	1.81	8.04

Grand Ave	7.74	0.50	8.24	7.16	0.65	7.81
-----------	------	------	------	------	------	------

<sup>1</sup>West Indian School Road monitor

The target CO concentration for the maintenance demonstration modeling is 9.0 ppm. MAG therefore needed to show that combined UAM and CAL3QHC concentrations remain below 9 ppm in 2006 and 2015, despite the metropolitan area's growth. The MAG modeling shows a maximum CO concentration of 8.92 ppm in 2006, and 8.06 ppm in 2015; these meet the maintenance goal of 9.0 ppm.

For episode selection, modeling domain, wind fields, initial and boundary conditions, sensitivity testing was essentially identical between the two episodes (see the EPA TSD for the Revised 1999 CO Plan). The tests done showed that the model was responding reasonably. MAG's modeling also meets EPA's performance goals on peak level, peak timing, and absolute error. Model predictions in the MAG CO Redesignation Request and Maintenance Plan are closer to observations than in the Revised 1999 CO Plan modeling.

Since the peak values and general spatial patterns match well and EPA's model performance goals were met, overall the model appears to be replicating the episode fairly well, and forms an acceptable basis for a demonstration of maintenance. Overall, the modeling done by MAG for the CO maintenance demonstration performed adequately and meets EPA guidelines. EPA proposes to

find the maintenance demonstration approvable.

### 3. Monitoring Network and Verification of Continued Attainment

Continued attainment of the CO NAAQS in the Maricopa County area depends, in part, on the State's efforts to track indicators throughout the maintenance period. This requirement is met in two sections of the MAG CO Redesignation Request and Maintenance Plan. On page 3-15 of the MAG CO Redesignation Request and Maintenance Plan, MAG commits to continue the operation of the CO monitors in the Maricopa County area and to annually review this monitoring network and make changes as appropriate.

Also, on page 3-15 of the MAG CO Redesignation Request and Maintenance Plan, MAG commits to track mobile sources CO emissions (which are the largest component of the inventories) through the ongoing submittal of periodic emissions inventories every three years in accordance with section 187(a)(5) of the CAA. MCESD will coordinate and compile the inventory with input and assistance from ADEQ, the Arizona Department of Transportation, and MAG, as described in the 1992 Air Quality Memorandum of Agreement. Changes in the inventory will be reviewed and evaluated through the regional air quality planning process to determine if additional measures should be considered.

Based on the information above, we are proposing approval of these commitments as satisfying the relevant requirements of the CAA for maintenance plans. We note that a final rulemaking

approval will render the State's commitments federally enforceable.

#### 4. Contingency Plan

Section 175A(d) of the CAA requires that a maintenance plan include contingency provisions. To meet this requirement, the State has identified appropriate contingency measures along with a schedule for the development and implementation of such measures.

As stated on page 3-15 of the MAG CO Redesignation Request and Maintenance Plan, implementation of the contingency measures for the Maricopa County area will be triggered by two verified readings exceeding 9.0 ppm at one monitor during a single CO season (i.e., October 1 through March 31<sup>st</sup>). Since a violation of the NAAQS for 8-hour CO occurs when the second highest reading at the same monitor over two consecutive years is greater than or equal to 9.5 ppm, this trigger is more stringent than the standard, and will serve to prevent the occurrence of future violations.

When the contingency measure trigger is activated, MAG will consider additional measures on the following schedule: (a) verification of the monitoring data to be completed three months after activation of the trigger; (b) applicable measure to be considered for adoption six months after the date established in (a) above; and (c) the resultant measure to be implemented within six to twelve months, depending on the time needed to put the measure in place.

## 5. Commitment to Submit Subsequent Maintenance Plan Revisions

In accordance with section 175A(b) of the CAA, as the designated regional air quality planning agency for the Maricopa County area, MAG has committed to submit a revised maintenance plan eight years after redesignation. This provision for revising the maintenance plan is contained in Chapter 3, pages 3-16 to 3-17 of the Maricopa County CO maintenance plan.

## **VII. EPA's Evaluation of the Transportation Conformity**

### **Requirements in the MAG CO Redesignation Request and Maintenance Plan**

One of the primary tests for conformity is to show that transportation plans and transportation improvement programs will not cause motor vehicle emissions to increase above levels needed to make progress towards and to meet air quality standards. The motor vehicle emissions levels needed to make progress toward and to meet the air quality standards are set in the area's air quality plans as "emissions budgets for motor vehicles". More details about conformity tests are described in section IV.A of this notice. EPA has been using a process and specific criteria for determining the adequacy of emissions budgets in control strategy SIPs since a 1999 court ruling. This process is now codified in a recent revision to the conformity rule (see 69 FR 40004, July 1, 2004).

The MAG CO Redesignation Request and Maintenance Plan defines



the CO motor vehicle emissions budgets in the Maricopa County area as 699.7 tons per day for 2006 and 662.9 tons per day for 2015 and beyond. The budget for 2015 is equal to the maintenance year (2015) mobile source emissions inventory for CO for the attainment/maintenance area. The MAG CO Redesignation Request and Maintenance Plan and supporting documentation indicate that the 662.9 budget for 2015 is consistent with maintenance of the CO NAAQS throughout the maintenance period. Therefore, we are proposing to approve the 699.7 tons per day CO emissions budget for 2006 and the 662.9 tons per day CO emissions budget for 2015 for the Maricopa County nonattainment area.

EPA's adequacy determination on the MAG CO budgets for 2006 and 2015 was made in a letter to ADEQ and MAG on September 9, 2003 and was announced in the Federal Register on September 29, 2003 (68 FR 55950). As a result of this adequacy finding, the 699.7 ton per day budget for 2006 and the 662.9 budget for 2015 took effect for the conformity determinations in the Maricopa County nonattainment area on October 14, 2003. However, we are not bound by that determination in acting on the maintenance plan.

#### **VIII. GRIC Boundary Change Under CAA Section 107**

EPA is proposing to change the boundary of the Maricopa County CO nonattainment/maintenance area to exclude the Gila River Indian Reservation ("Reservation").

##### ***A. Background***

## 1. Current Area Boundary, Designation, and Classification

Areas of the country were originally designated as attainment, nonattainment or unclassifiable following enactment of the 1977 Amendments to the CAA. See 43 FR 8962 (March 3, 1978). These designations were generally based on monitored air quality values compared to the applicable NAAQS. The Maricopa County nonattainment area was designated a nonattainment area for CO in April 1977. The boundary for the Maricopa County CO nonattainment area was first established following the CAA Amendments of 1977. See 43 FR 8962 (March 3, 1978)

Under the 1990 Clean Air Act Amendments, the Maricopa County CO nonattainment area was again classified as a nonattainment area for CO. The nonattainment area boundary remained the same. 56 FR 6335 (November 6, 1991). On August 28, 1996, the Maricopa County CO nonattainment area was reclassified to serious due to a failure to attain the 8-hour CO standard by December 31, 1995. 61 FR 39345 (July 29, 1996)

Area boundaries and area classifications have been amended over the years under the applicable CAA provisions, either by request of a state, by operation of law, or by EPA initiative. For the State of Arizona, the current area designations and classifications are codified at 40 CFR 81.303.

## 2. GRIC's Request for a Boundary Change

On July 14, 2004, the Gila River Indian Community

("Community"), a federally-recognized tribal government<sup>15</sup>, submitted a formal request to EPA to revise the boundary of the Maricopa County CO nonattainment area to exclude the Reservation.<sup>16</sup> The Community's analysis of air quality data existing at the time of and subsequent to the designation in 1978 as well as the nature of the CO sources on the Reservation demonstrated that the Reservation has not had a monitored or predicted violation of the CO NAAQS since, and that no significant sources of CO exist on the Reservation.

*B. EPA Review of the Community's Request*

1. EPA's Authority to Change Boundaries

Under section 107(d)(3)(A), EPA has the authority to revise the boundary of a nonattainment area on the basis of air quality data, planning and control considerations, or any other air quality-related considerations the Administrator deems appropriate.

2. The Gila River Indian Reservation Airshed

The Gila River Indian Reservation consists of approximately 374,000 acres in south central Arizona, south of the Phoenix metropolitan area. Currently, the Maricopa County (Phoenix area) CO nonattainment area includes the northern 92,000 acres of the

---

<sup>15</sup>67 FR 46329 (July 12, 2002)

<sup>16</sup>The Maricopa County CO nonattainment area includes the portion of the Reservation that lies within Maricopa County, approximately the northern 25% of the Reservation.

Reservation. The Reservation is physically separated from the Phoenix metropolitan area by the Sierra Estrella and South Mountain Ranges. The Sierra Estrella Mountain Range runs north and south along the western edge of the Reservation. The South Mountain Range runs diagonally in a northeasterly direction, between one and five miles beyond the northern Reservation boundary. The mountain ranges act as a physical barrier between the two airsheds.

A segment of the northern border of the Reservation adjacent to Chandler does not have a topographical barrier to air pollution transport. However, the prevailing winds flow to the northeast, sending CO emissions from Chandler away from the Reservation. Along the northeastern border of the Reservation, the Santan Mountain Range separates the Reservation from Gilbert and Apache Junction.

The Reservation has a population of approximately 11,250 people, with a population density of approximately 20 people per square mile. There are no major population centers within the Reservation. By comparison, Maricopa County (including vast rural areas west of the urban area which are not part of the nonattainment area) has a population of 2,122,101, with a population density of over 230 people per square mile.

### 3. CO and the Reservation

In general, ambient CO concentrations are caused by onroad and nonroad mobile emissions sources. The level of mobile source

emissions can be directly correlated to population density and land use patterns. The Community population density of 20 people per square mile is minor compared to all of Maricopa County, which has a density of over 230 people per square mile. Commuting patterns on the Reservation are virtually nonexistent.

Approximately 2200 cars, trucks and vans commute to work within the Reservation, compared to 1,250,000 in Maricopa County. There is little economic integration with commercial development in metropolitan Phoenix, and the Reservation remains largely rural and agricultural. The Community plans to expand its agricultural base by investing millions of dollars in agricultural infrastructure.

Total annual emissions of CO on the Reservation are less than one percent of those in the MAG serious CO nonattainment area. High CO concentrations in the MAG nonattainment area are associated almost exclusively with areas of high traffic congestion, which do not exist on the Reservation. Therefore, there is substantial basis for concluding that the Reservation is an insignificant generator of CO emissions.

#### 4. CO Planning Issues

Attainment of the CO NAAQS in the Phoenix metropolitan area was achieved by Arizona through the SIP planning process. It is important to note that, under the Clean Air Act, the state and local air pollution control authorities are not administering EPA-approved air regulatory programs over the Reservation;

consequently, the SIP rules that were applied to the metropolitan area and resulted in attainment of the NAAQS did not apply to the Reservation. Furthermore, due to the Reservation's lack of CO sources, it was never considered necessary to apply CO limits to sources in the Reservation.<sup>17</sup>

Just as it was clear that it was not necessary for an attainment plan to be applicable to the Reservation for the Phoenix area to attain the CO NAAQS, it is clear to EPA that it will not be necessary for a maintenance plan to be applicable to the Reservation for the Phoenix area to maintain attainment of the NAAQS.

#### *C. Redesignation of the Northern Portion of the Reservation*

In view of the above considerations, and because no CO air quality data exists for the Reservation, EPA believes "nonclassifiable/attainment" is the appropriate designation for the entire Reservation, including that portion heretofore included in the nonattainment area. Therefore, EPA proposes to redesignate to "nonclassifiable/attainment" the portion of the Reservation that is now within the nonattainment area, and make it part of the surrounding nonclassifiable/attainment area.

### **IX. Proposed Action**

We are soliciting public comment on all aspects of this

---

<sup>17</sup> EPA could have applied CO limits to sources on the Reservation, as it has authority under CAA 301(d) to promulgate regulations for Indian country as necessary or appropriate "to achieve the appropriate purpose" of the Act.

proposed SIP rulemaking action. We will consider your comments in deciding our final action if your comments are received by [insert date 30 days from date of publication in the Federal Register.]

We propose to approve the following elements of the Revised 1999 CO Plan for the metropolitan Phoenix area and the MAG CO Redesignation Request and Maintenance Plan:

1. 1990 base year and 1993 and 1996 periodic emission inventories as required by sections 172(c)(3) and 187(a)(5).
2. Demonstration that the plan provides for the implementation of reasonably available control measures including transportation control measures under sections 172(c)(1) and 187(b)(2);
3. Demonstration of attainment by December 31, 2000 under section 187(a)(7);
4. Demonstration of reasonable further progress under sections 172(c)(2) and 187(a)(7);
5. Contingency measures under sections 172(c)(9) and 187(a)(3);
6. Forecasts of vehicle miles traveled and provisions for annual tracking and reporting under section 187(a)(2)(A);
7. transportation control measures as necessary to offset growth in emissions under section 187(b)(2);
8. attainment year and projected emissions inventories under section 175A;
9. air quality monitoring requirements under section 110(a)(2) and section 172(c)(7);
10. CO motor vehicle emissions budgets for transportation

conformity under section 176(c) for the attainment demonstration and the maintenance plan for the years 2000, 2006 and 2015 under the transportation conformity rule, 40 CFR Part 93, subpart A;

12. demonstration of maintenance under section 175A(a) and a fully-approved maintenance plan under section 175A;

13. maintenance plan contingency measures under section 175A(d);

14. commitment for subsequent maintenance plan revisions under section 175A(b);

15. redesignation of that portion of the Gila River Indian Reservation that is now within the nonattainment area to "nonclassifiable/attainment"; and

16. a determination that the improvement in air quality in the Maricopa County nonattainment area is due to permanent and enforceable reductions in emissions resulting from the implementation of the applicable implementation plan, implementation of applicable Federal air pollution control regulations, and other permanent and enforceable reductions.

We have previously approved all control measures relied on for attainment and contingency measures in the Revised 1999 CO Plan, including the area's enhanced inspection and maintenance program (required by section 187(a)(6)), oxygenated gasoline program (required by sections 187(b)(3) and 211(m)), and woodburning curtailment regulations. See 68 FR 2912, 69 FR 10161, 64 FR 60678 and 67 FR 52416.

As stated above, we are proposing approval of MAG's June 16,



2003 request to redesignate the Maricopa County CO nonattainment area to attainment and proposing approval of the maintenance plan for the Maricopa County CO nonattainment area.

We are also proposing to change the designation of the portion of the Gila River Indian Community which is in the Maricopa County CO nonattainment area to "unclassifiable/attainment" for CO.

#### **X. Statutory and Executive Order Reviews**

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a "significant regulatory action" and therefore is not subject to review by the Office of Management and Budget. For this reason, this action is also not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001). This action merely approves state law as meeting Federal requirements and imposes no additional requirements beyond those imposed by state law. Accordingly, the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. § 601 *et seq.*). Because this rule approves pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described

in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4).

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

Under section 5(b) of Executive Order 13175, EPA may not issue a regulation that has tribal implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by tribal governments, or EPA consults with tribal officials early in the process of developing the proposed regulation. Under section 5(c) of Executive Order 13175, EPA may not issue a regulation that has tribal implications and that preempts tribal law, unless the Agency consults with tribal officials early in the process of developing the proposed regulation.

EPA has concluded that this proposed rule may have tribal implications. EPA's action will remove the Gila River Indian

Community from the Phoenix CO maintenance area. However, it will neither impose substantial direct compliance costs on tribal governments, nor preempt State law. Thus, the requirements of sections 5(b) and 5(c) of the Executive Order do not apply to this rule.

Consistent with EPA policy, EPA nonetheless consulted with representatives of tribal governments early in the process of developing this regulation to permit them to have meaningful and timely input into its development. Representatives of tribal governments approached EPA two years ago and requested that EPA make this boundary change. We agree with the technical and policy rationale the tribe provided, and believe that all tribal concerns have been met.

In the spirit of Executive Order 13175, and consistent with EPA policy to promote communications between EPA and tribal governments, EPA specifically solicits additional comment on this proposed rule from tribal officials.

This action also does not have Federalism implications because it does not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999). This action merely approves a state rule implementing a Federal standard, and does not alter the relationship or the distribution of power and responsibilities

established in the Clean Air Act. This rule also is not subject to Executive Order 13045 "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), because it is not economically significant.

In reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. In this context, in the absence of a prior existing requirement for the State to use voluntary consensus standards (VCS), EPA has no authority to disapprove a SIP submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a SIP submission, to use VCS in place of a SIP submission that otherwise satisfies the provisions of the Clean Air Act. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

The Congressional Review Act, 5 U.S.C. section 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the

U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a "major rule" as defined by 5 U.S.C. section 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by [FEDERAL REGISTER OFFICE: insert date 60 days from date of publication of this document in the Federal Register]. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See CAA section 307(b)(2).)

#### **List of Subjects**

#### **40 CFR Part 52**

Environmental protection, Air pollution control,  
Incorporation by reference, Intergovernmental relations,  
Reporting and recordkeeping requirements, Carbon monoxide.

---

Dated

---

Wayne Nastri,  
Regional Administrator,  
Region 9.